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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,289	06/29/2004	Shunji Maekawa	042274	5211

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EXAMINER	
SHAH, MANISH S	

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H:A

Office Action Summary	Application No.	Applicant(s)	
	10/500,289	MAEKAWA ET AL.	
	Examiner	Art Unit	
	Manish S. Shah	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6/29; 8/23; 3/15. 1/26; 4/3
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 10/487865 in view of Burr et al. (# EP 0739957 A1).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is disclosed in the co-pending application and is covered by the co-pending application since the co-pending application and the application are claiming common subject matter, as follows as shown in Table: 1 below.

TABLE: 1

# 10/487,865 CLAIMS	# 10/500,289 CLAIMS
1. An ink for ink jet recording comprising: water; a water-soluble organic solvent; a water-insoluble color material; a dispersant; and a compound expressed by the following chemical formula: R–O–(CH2CH.2O)n–H where R is an alkyl group having a carbon number of 25 to 150 and n is from 2 to 100.	1. An ink for sublimation transfer ink jet recording comprising: water; at least one sugar alcohol containing not less than four OH groups; a sublimation dye; a dispersant; and a compound expressed by the following chemical formula: R–O–(CH2CH2O)n–H where r is an alkyl group having a carbon number of 25 to 150 and n is from 2 to 100.
2. The ink for ink jet recording according to claim 1, wherein R is an alkyl group having a carbon number of 30 to 50 and n is from 10 to 50 in the chemical formula (I).	3. The ink for sublimation transfer ink jet recording according to claim 1, wherein R is an alkyl group having a carbon number of 30 to 50 and n is from 10 to 50 in the chemical formula (I).
3. The ink for ink jet recording according to claim 1, wherein HLB of the compound expressed by the chemical formula (I) is not less than 10.	4. The ink for sublimation transfer ink jet recording according to claim 1, wherein hydrophile-lipophile balance (HLB) of the compound expressed by the chemical formula (I) is not less than 10.
4. The ink for ink jet recording according to claim 1, wherein the water-insoluble color material is a disperse dye or solvent dye. 5. The ink for ink jet recording according to claim 1, wherein the water-insoluble color material is a disperse dye.	5. The ink for sublimation transfer ink jet recording according to claim 1, wherein the sublimation dye is at least one selected from the group consisting of a disperse dye and a solvent dye.
6. The ink for ink jet recording according to claim 1, wherein the dispersant is at least one selected from the group consisting of an anionic surfactant, a nonionic surfactant, and a high-molecular surfactant.	6. The ink for sublimation transfer ink jet recording according to claim 1, wherein the dispersant is at least one selected from the group consisting of an anionic surfactant, a nonionic surfactant, and a high-molecular surfactant.
7. The ink for ink jet recording according to claim 1, wherein an amount of the compound expressed by the chemical formula (I) is 0.1 to 8 wt % with respect to a total weight of ink.	8. The ink for sublimation transfer ink jet recording according to claim 1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt %, an amount of the sublimation dye is 0.2 to 12 wt %, an amount of the dispersant is 0.1 to 20 wt %, and an amount of the compound expressed by the chemical formula (I) is 0.1 to 8 wt % with respect to a total weight of ink.
8. The ink for ink jet recording according to claim 1, wherein an amount of the water-soluble organic solvent is 5 to 50 wt %, an amount of the water-insoluble color material is 0.5 to 15 wt %, an amount of the dispersant is 0.5 to 20 wt %, and an amount of the compound expressed by the chemical formula (I) is 0.1 to 8 wt % with respect to a total weight of ink.	7. The ink for sublimation transfer ink jet recording according to claim 1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt % with respect to a total weight of ink. 2. The ink for sublimation transfer ink jet recording according to claim 1, wherein the sugar alcohol containing not less than four OH groups is at least one selected from the group consisting of D-sorbitol, xylitol, and maltitol.

However, the co-pending application (865) did not claim the ink for inkjet recording comprising at least one sugar alcohol containing not less than four OH groups, which is at least one selected from the group consisting of D-sorbitol, xyliton, and malititol in an amount from 0.5 to 50% by weight.

Burr et al. teaches that to get the high quality printed image, an ink for inkjet recording including water (see Abstract); at least one sugar alcohol is sorbitol or maltitol having not less than four OH group (page: 2, line: 40-46). They also teach that the ink includes an amount of the sugar alcohol is from 1 to 20% by weight (page: 2, line: 45-47; see Examples).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of pending application (289) by the aforementioned teaching of Burr et al. in order to have a high quality printed image.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burr et al. (# EP 0739957 A1) in view of Breton et al. (# US 5484475).

Burr et al. discloses an ink for inkjet recording including water (see Abstract); at least one sugar alcohol is sorbitol or maltitol having not less than four OH group (page: 2, line: 40-46); a sublimation dye, which is solvent dye (Solvent Orange 7 and Solvent Blue 58) (page: 3, line: 27-30); a dispersant, which is selected from anionic surfactant, a nonionic surfactant and a high molecular surfactant (page: 2, line: 47-50; see Examples). They also disclose that the ink includes an amount of the sugar alcohol is from 1 to 20% by weight (page: 2, line: 45-47; see Examples), an amount of the sublimation dye is 0.1 to 10% by weight (page: 3, line: 33-35; see Examples) and an amount of the dispersant (surfactant) is 0.3 to 0.7% by weight (page: 2, line: 47-49; see Examples).

Burr et al. differs from the claim of the present invention is that the ink including a compound expressed by the chemical formula R-O-$(CH_2CH_2O)_n$-H, wherein R is an alkyl group having a carbon number of 25 to 150 and n is from 2 to 100, and having HLB not less than 10 and an amount from 0.1 to 8% by weight.

Breton et al. teaches that to get the high quality print and rapid drying, inkjet ink composition includes a hot melt ink (sublimation) and Ethoxylate alcohols are the general formula CH_3-$(CH_2$-$CH_2)_x$-CH_2-O-$(CH_2$-CH_2-$O)_n$-H, wherein n is 2 to 41 (column: 7, line: 44-50), and having a HLB value 2 to 18 (i.e. Unithox 420, 450, 480, 520, 550, 720 and 750, which is same as the applicant disclose in page: 8 of specification) (column: 7, line: 57-65) and in an amount form 2 to 15% by weight (column: 8, line: 1-6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of Burr et al. by the aforementioned teaching of Breton et al. in order to have a rapid drying ink and high quality print.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann et al. (# US 6607565) in view of Burr et al. (# EP 0739957 A1) and Breton et al. (# US 5484475).

Herrmann et al. discloses a sublimation transfer dyeing method including printing the ink on a sheet medium by inkjet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed (column: 8, line: 10-20); wherein ink including water (see Table: 1-6), a sublimation dye, which is dispersed dye in an amount from 0.2 to 12% by weight (see Table: 1-6); a dispersant, which is selected from anionic surfactant, a nonionic surfactant and a high molecular surfactant in an amount from 0.1 to 20% by weight (column: 7, line: 20-30; see Table: 1-6). They also disclose that the ink does not substantially includes a water-soluble organic solvent (see Table: 1-6).

Herrmann et al. differs from the claim of the present invention is that (1) the ink includes at least one sugar alcohol containing not less than four OH groups, which selected from D-sorbitol and maltitol in an amount of 0.5 to 50% by weight. (2) The ink including a compound expressed by the chemical formula $R\text{-}O\text{-}(CH_2CH_2O)_n\text{-}H$, wherein R is an alkyl group having a carbon number of 25 to 150 and n is from 2 to 100, and having HLB not less than 10 and an amount from 0.1 to 8% by weight.

Burr et al. teaches that to get the high quality printed image, an ink for inkjet recording including water (see Abstract); at least one sugar alcohol is sorbitol or maltitol having not less than four OH group (page: 2, line: 40-46). They also teach that the ink includes an amount of the sugar alcohol is from 1 to 20% by weight (page: 2, line: 45-47; see Examples).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of Herrmann et al. by the aforementioned teaching of Burr et al. in order to have a high quality printed image.

Breton et al. teaches that to get the high quality print and rapid drying, inkjet ink composition includes a hot melt ink (sublimation) and Ethoxylate alcohols are the general formula CH_3-$(CH_2$-$CH_2)_x$-CH_2-O-$(CH_2$-CH_2-$O)_n$-H, wherein n is 2 to 41 (column: 7, line: 44-50), and having a HLB value 2 to 18 (i.e. Unithox 420, 450, 480, 520, 550, 720 and 750, which is same as the applicant disclose in page: 8 of specification) (column: 7, line: 57-65) and in an amount form 2 to 15% by weight (column: 8, line: 1-6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of Herrmann et al. by the aforementioned teaching of Breton et al. in order to have a rapid drying ink and high quality print.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah
Primary Examiner
Art Unit 2853

MSS
4/14/06